



energies



Special Issue Reprint

Computational Heat Transfer and Fluid Mechanics

www.mdpi.com/books/reprint/5845

Edited by

Pouyan Talebizadeh Sardari

Goodarz Ahmadi

Kiao Inthavong

ISBN 978-3-0365-4543-1 (Hardback)

ISBN 978-3-0365-4544-8 (PDF)



With the advances in high-speed computer technology, complex heat transfer and fluid flow problems can be solved computationally with high accuracy. Computational modeling techniques have found a wide range of applications in diverse fields of mechanical, aerospace, energy, environmental engineering, as well as numerous industrial systems. Computational modeling has also been used extensively for performance optimization of a variety of engineering designs. The purpose of this book is to present recent advances, as well as up-to-date progress in all areas of innovative computational heat transfer and fluid mechanics, including both fundamental and practical applications. The scope of the present book includes single and multiphase flows, laminar and turbulent flows, heat and mass transfer, energy storage, heat exchangers, respiratory flows and heat transfer, biomedical applications, porous media, and optimization. In addition, this book provides guidelines for engineers and researchers in computational modeling and simulations in fluid mechanics and heat transfer.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/5845

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.